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Remarks

The Office Action mailed August 7, 2003 has been carefully reviewed and the following remarks are made in consequence thereof.

Claims 1-20 are pending. Claims 1-20 are rejected.

The rejection of Claims 1, 3-6, 9, and 11 under 35 U.S.C. § 103 as being unpatentable over Toth et al. (Toth) in view of Oomori et al. (Oomori) and Fujise is respectfully traversed.

Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells (column 2, lines 58-60).

Oomori describe unit detecting elements (5) arranged on a substrate (6) in a zigzag form, wherein reference numeral 7 illustrates a Z axis.

Fujise describes a method of imaging an organ by scanning with a source and a detector coupled to a rotating gantry and reconstructing an image (Column 4, lines 2-7).

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Toth, Oomori, and Fujise, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth with Oomori or Fujise, because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not

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pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Toth is cited for its teaching of a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, and Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Toth, Oomori, and Fujise, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 1 recites a method including the steps of "scanning a volume of a patient's body including an organ of the patient with a computed tomographic (CT) imaging system having a radiation source and detector coupled to a rotating gantry, the detector array having a z-direction parallel to an axis of rotation of the gantry and an x-direction transverse to the z-direction; acquiring attenuation data

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from a plurality of staggered half detector segments of the detector array, wherein said staggered half detector segments separated by empty space therebetween, and wherein a plurality of said staggered half detectors are abutted in regions about a centerline extending in the z-direction; and reconstructing an image including the patient's organ using the acquired attenuation data".

None of Toth, Oomori, and Fujise, considered alone or in combination, describe or suggest a method including acquiring attenuation data from a plurality of staggered half detector segments of the detector array, wherein the staggered half detector segments are separated by empty space therebetween, and wherein a plurality of the staggered half detectors are abutted in regions about a centerline extending in the z-direction. Rather, Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, and Oomori describes unit detecting elements arranged on a substrate in a zigzag form. For the reasons set forth above, Claim 1 is submitted to be patentable over Toth in view of Oomori and Fujise.

Claim 3 recites a radiation detector for an imaging system, wherein "said radiation detector having a centerline extending in a z-direction and comprising a plurality of staggered half detector segments abutted in regions about said centerline and separated from one another by empty space, said staggered half detector segments each comprising a plurality of detector modules".

None of Toth, Oomori, and Fujise, considered alone or in combination, describe or suggest a radiation detector including a plurality of staggered half detector segments abutted in regions around a centerline extending in a Z axis direction and separated from one another by empty space. Rather, Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, and Oomori describes unit detecting elements

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arranged on a substrate in a zigzag form. For the reasons set forth above, Claim 3 is submitted to be patentable over Toth in view of Oomori and Fujise.

Claims 4-6, 9, and 11 depend from independent Claim 3. When the recitations of Claims 4-6, 9, and 11 are considered in combination with the recitations of Claim 3, Applicant submits that dependent Claims 4-6, 9, and 11 likewise are patentable over Toth in view of Oomori and Fujise.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 1, 3-6, 9, and 11 be withdrawn.

The rejection of Claims 2 and 7 under 35 U.S.C. § 103 as being unpatentable over Toth in view of Oomori and Fujise, and further in view of Cuppen is respectfully traversed.

Toth, Oomori, and Fujise are described above. Cuppen describes a detector system including a two-dimensional matrix of detector cells (column 5, lines 37-39). The matrix includes rows extending in a traverse direction and columns extending in a longitudinal direction (column 5, lines 42-45). Some columns have different widths (column 5, lines 47-53).

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Toth, Oomori, Fujise, and Cuppen, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth with Oomori, Fujise, and Cuppen, because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

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Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically Toth is cited for its teaching of a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, and Cuppen is cited for its teaching of columns with different widths. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Toth, Oomori, Fujise, and Cuppen, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 2 depends from Claim 1 which recites a method including the steps of "scanning a volume of a patient's body including an organ of the patient with a computed tomographic (CT) imaging system having a radiation source and detector coupled to a rotating gantry, the detector array having a z-direction parallel to an axis of rotation of the gantry and an x-direction transverse to the z-direction; acquiring attenuation data from a plurality of staggered

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half detector segments of the detector array, wherein said staggered half detector segments separated by empty space therebetween, and wherein a plurality of said staggered half detectors are abutted in regions about a centerline extending in the z-direction; and reconstructing an image including the patient's organ using the acquired attenuation data".

None of Toth, Oomori, Fujise, and Cuppen, considered alone or in combination, describe or suggest a method including acquiring attenuation data from a plurality of staggered half detector segments of the detector array, wherein the staggered half detector segments are separated by empty space therebetween, and wherein a plurality of the staggered half detectors are abutted in regions about a centerline extending in the z-direction. Rather, Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, Oomori describes unit detecting elements arranged on a substrate in a zigzag form, and Cuppen describe columns of different widths. For the reasons set forth above, Claim 1 is submitted to be patentable over Toth in view of Oomori and Fujise, and further in view of Cuppen.

Claim 2 depends from independent Claim 1. When the recitations of Claim 2 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claim 2 likewise is patentable over Toth in view of Oomori and Fujise, and further in view of Cuppen.

Claim 7 depends from Claim 3 which recites a radiation detector for an imaging system, wherein "said radiation detector having a centerline extending in a z-direction and comprising a plurality of staggered half detector segments abutted in regions about said centerline and separated from one another by empty space, said staggered half detector segments each comprising a plurality of detector modules".

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None of Toth, Oomori, Fujise, and Cuppen, considered alone or in combination, describe or suggest a radiation detector including a plurality of staggered half detector segments abutted in regions around a centerline extending in a z-direction and separated from one another by empty space. Rather, Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, Oomori describes unit detecting elements arranged on a substrate in a zigzag form, and Cuppen describe columns of different widths. For the reasons set forth above, Claim 3 is submitted to be patentable over Toth in view of Oomori and Fujise, and further in view of Cuppen.

Claim 7 depends from independent Claim 3. When the recitations of Claim 7 are considered in combination with the recitations of Claim 3, Applicant submits that dependent Claim 7 likewise is patentable over Toth in view of Oomori and Fujise, and further in view of Cuppen.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 2 and 7 be withdrawn.

The rejection of Claim 8 under 35 U.S.C. § 103 as being unpatentable over Toth in view of Oomori, Fujise, and Cuppen, and further in view of Hsieh is respectfully traversed.

Toth, Oomori, Fujise, and Cuppen are described above. Hsieh describes a combination of double and triple cell ganging which resolves any incompatibility between the number of detector channels and the lower number of DAS channels (Abstract, lines 1-3).

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Toth, Oomori, Fujise, Cuppen,

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and Hsieh, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth et al. with Oomori, Fujise, Cuppen, and Hsieh because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Toth is cited for its teaching of a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, and Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Cuppen is cited for its teaching of columns with different widths, and Hsieh is cited for its teaching of double and triple ganging of cells. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

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Further, and to the extent understood, none of Toth, Oomori, Fujise, Cuppen, and Hsieh, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 8 depends from Claim 3 which recites a radiation detector for an imaging system, wherein "said radiation detector having a centerline extending in a z-direction and comprising a plurality of staggered half detector segments abutted in regions about said centerline and separated from one another by empty space, said staggered half detector segments each comprising a plurality of detector modules".

None of Toth, Oomori, Fujise, Cuppen, and Hsieh, considered alone or in combination, describe or suggest a radiation detector including a plurality of staggered half detector segments abutted in regions around a centerline extending in a z-direction and separated from one another by empty space. Rather, Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, Oomori describes unit detecting elements arranged on a substrate in a zigzag form, Cuppen describe columns of different widths, and Hsieh describes double and triple ganging of cells. For the reasons set forth above, Claim 3 is submitted to be patentable over Toth in view of Oomori, Fujise, and Cuppen, and further in view of Hsieh.

Claim 8 depends indirectly from independent Claim 3. When the recitations of Claim 8 are considered in combination with the recitations of Claim 3, Applicant submits that dependent Claim 8 likewise is patentable over Toth in view of Oomori, Fujise, and Cuppen, and further in view of Hsieh.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claim 8 be withdrawn.

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The rejection of Claim 10 under 35 U.S.C. § 103 as being unpatentable over Toth in view of Oomori and Fujise, and further in view of Hoffman et al. (Hoffman) is respectfully traversed.

Toth, Oomori, and Fujise are described above. Hoffman describes a collimator including a housing and a grid connected to the housing, wherein the grid includes a plurality of blades and a plurality of attenuating wires, wherein each of the blades being radially spaced from and extending substantially parallel to an adjacent one of the blades, and wherein the wires extend substantially perpendicular to the blades (Claim 1).

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Toth, Oomori, Fujise, and Hoffman, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth et al. with Oomori, Fujise, and Hoffman because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the

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claimed invention. Specifically, Toth is cited for its teaching of a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, and Hoffman is cited for its teaching of blades being radially spaced from and extending substantially parallel to an adjacent one of the blades, and wherein the wires extend substantially perpendicular to the blades. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Toth, Oomori, Fujise, and Hoffman, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 10 depends indirectly from Claim 3 which recites a radiation detector for an imaging system, wherein "said radiation detector having a centerline extending in a z-direction and comprising a plurality of staggered half detector segments abutted in regions about said centerline and separated from one another by empty space, said staggered half detector segments each comprising a plurality of detector modules".

None of Toth, Oomori, Fujise, and Hoffman, considered alone or in combination, describe or suggest a radiation detector including a plurality of staggered half detector segments abutted in regions around a centerline extending in a Z axis direction and separated from one another by empty space. Rather, Toth describes a detector including a plurality of modules wherein each module includes a plurality of detector cells, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, Oomori describes unit

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detecting elements arranged on a substrate in a zigzag form, and Hoffman describes blades being radially spaced from and extending substantially parallel to an adjacent one of the blades, and wherein the wires extend substantially perpendicular to the blades. For the reasons set forth above, Claim 3 is submitted to be patentable over Toth in view of Oomori and Fujise, and further in view of Hoffman.

Claim 10 depends indirectly from independent Claim 3. When the recitations of Claim 10 are considered in combination with the recitations of Claim 3, Applicant submits that dependent Claim 10 likewise is patentable over Toth in view of Oomori and Fujise, and further in view of Hoffman.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claim 10 be withdrawn.

The rejection of Claims 12-16, 18, and 20 under 35 U.S.C. § 103 as being unpatentable over Toth in view of Oomori, Cuppen, Fujise, and Gordon is respectfully traversed.

Toth, Oomori, Cuppen, and Fujise are described above. Gordon describes a spatially encoded detector arrangement, with columns of different lengths, the different slice thickness can be achieved in an efficient manner to allow for variable slice thicknesses and multiple slices for CT scanning (Column 11, lines 44-49). The detector elements are sized and arranged so that at least some of the detector elements provided in each of the columns have lengths that vary in the Z axis direction (Column 4, lines 47-49).

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Oomori, Toth, Cuppen, Fujise, and Gordon, considered alone or in combination, describe or suggest the claimed combination.

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Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth with Oomori, Cuppen, Fujise, and Gordon because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Toth is cited for its teaching of modules, Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Cuppen is cited for its teaching of columns of different widths, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, and Gordon is cited for its teaching of a spatially encoded detector arrangement wherein the detector elements provided in each of the columns have lengths that vary in the Z axis direction. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Toth, Oomori, Cuppen, Fujise, and Gordon, considered alone or in combination, describe or suggest the claimed combination, and as

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such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 12 recites a CT system including "a rotating gantry having an axis of rotation (z-axis); a radiation source configured to rotate with the rotating gantry; and a multislice detector array configured to rotate with the rotating gantry and configured to acquire attenuation data from a patient between the radiation source and the detector, said detector array comprising a plurality of staggered half-detector segments separated from one another by empty space and configured to provide attenuation data having a relatively higher spatial resolution near a centerline extending in the z-axis direction of said detector array and a relatively lower spatial resolution distal to said centerline, a data acquisition system configured to receive attenuation data from the detector, including the relatively lower spatial attenuation data and the relatively higher spatial resolution attenuation data, and an image reconstructor configured to utilize the attenuation data to reconstruct an image of the organ, including utilizing the relatively lower spatial resolution data, to thereby reduce artifacts in the image".

None of Toth, Oomori, Cuppen, Fujise, and Gordon, considered alone or in combination, describe or suggest a plurality of staggered half-detector segments separated from one another by empty space and configured to provide attenuation data having a relatively higher spatial resolution near a centerline extending in the z-axis direction of the detector array and a relatively lower spatial resolution distal to the centerline. Rather, Oomori describes unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Toth describe detector modules, Cuppen describes columns of different widths, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, and Gordon describes a spatially encoded detector arrangement wherein the detector elements provided in each of the columns have lengths that vary in the Z axis direction. For the reasons set forth above, Claim 12 is submitted to be patentable over Toth et al. in view of Oomori, Cuppen, Fujise, and Gordon.

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Claims 13-16, 18, and 20 depend from independent Claim 12. When the recitations of Claims 13-16, 18, and 20 are considered in combination with the recitations of Claim 12, Applicant submits that dependent Claims 13-16, 18, and 20 likewise is patentable over Toth et al. in view of Oomori, Cuppen, Fujise, and Gordon.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 12-16, 18, and 20 be withdrawn.

The rejection of Claim 17 under 35 U.S.C. § 103 as being unpatentable over Toth in view of Oomori, Cuppen, Fujise, and Gordon, and further in view of Hsieh is respectfully traversed.

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Oomori, Toth, Cuppen, Fujise, Gordon, and Hsieh considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth with Oomori, Cuppen, Fujise, Gordon, and Hsieh because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is

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based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Toth is cited for its teaching of modules, Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Cuppen is cited for its teaching of columns of different widths, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, Gordon is cited for its teaching of a spatially encoded detector arrangement wherein the detector elements provided in each of the columns have lengths that vary in the Z axis direction, and Hsieh is cited for its teaching of double and triple ganging of cells. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Toth, Oomori, Cuppen, Fujise, Gordon, and Hsieh, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 17 depends from Claim 12 which recites a CT system including "a rotating gantry having an axis of rotation (z-axis); a radiation source configured to rotate with the rotating gantry; and a multislice detector array configured to rotate with the rotating gantry and configured to acquire attenuation data from a patient between the radiation source and the detector, said detector array comprising a plurality of staggered half-detector segments separated from one another by empty space and configured to provide attenuation data having a relatively higher spatial resolution near a centerline extending in the z-axis direction of said detector array and a relatively lower spatial resolution distal to said centerline, a data acquisition system configured to receive attenuation data from the detector, including the relatively lower spatial attenuation data and the relatively higher spatial resolution attenuation data, and an image

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reconstructor configured to utilize the attenuation data to reconstruct an image of the organ, including utilizing the relatively lower spatial resolution data, to thereby reduce artifacts in the image".

None of Toth, Oomori, Cuppen, Fujise, Gordon, and Hsieh, considered alone or in combination, describe or suggest a plurality of staggered half-detector segments separated from one another by empty space and configured to provide attenuation data having a relatively higher spatial resolution near a centerline extending in the z-axis direction of the detector array and a relatively lower spatial resolution distal to the centerline. Rather, Oomori describes that unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Toth describes detector modules, Cuppen describes columns of different widths, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, Gordon describes a spatially encoded detector arrangement wherein the detector elements provided in each of the columns have lengths that vary in the Z axis direction, and Hsieh describes double and triple ganging of cells. For the reasons set forth above, Claim 12 is submitted to be patentable over Toth in view of Oomori, Cuppen, Fujise, Gordon, and Hsieh.

Claim 17 depends from independent Claim 12. When the recitations of Claim 17 are considered in combination with the recitations of Claim 12, Applicant submits that dependent Claim 17 likewise is patentable over Toth in view of Oomori, Cuppen, Fujise, Gordon, and Hsieh.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claim 17 be withdrawn.

The rejection of Claim 19 under 35 U.S.C. § 103 as being unpatentable over Toth in view of Oomori, Cuppen, Fujise, and Gordon, and further in view of Hoffman is respectfully traversed.

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Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Oomori, Toth, Cuppen, Fujise, Gordon, and Hoffman, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicant respectfully submits that it would not be obvious to one skilled in the art to combine Toth with Oomori, Cuppen, Fujise, Gordon, and Hoffman because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicant's own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Toth is cited for its teaching of modules, Oomori is cited for its teaching of unit detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Cuppen is cited for its teaching of columns of different widths, Fujise is cited for its teaching of a source and a detector coupled to a rotating gantry and reconstructing of images, Gordon is cited for its teaching of a spatially encoded detector arrangement wherein the detector elements provided in each of the columns have lengths that vary in the Z axis direction, and Hoffman is cited for its teaching of blades being radially spaced from and extending substantially parallel to an adjacent one of the blades, and wherein the wires

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extend substantially perpendicular to the blades. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Toth, Oomori, Cuppen, Fujise, Gordon, and Hoffman, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 19 depends from Claim 12 which recites a CT system including "a rotating gantry having an axis of rotation (z-axis); a radiation source configured to rotate with the rotating gantry; and a multislice detector array configured to rotate with the rotating gantry and configured to acquire attenuation data from a patient between the radiation source and the detector, said detector array comprising a plurality of staggered half-detector segments separated from one another by empty space and configured to provide attenuation data having a relatively higher spatial resolution near a centerline extending in the z-axis direction of said detector array and a relatively lower spatial resolution distal to said centerline, a data acquisition system configured to receive attenuation data from the detector, including the relatively lower spatial attenuation data and the relatively higher spatial resolution attenuation data, and an image reconstructor configured to utilize the attenuation data to reconstruct an image of the organ, including utilizing the relatively lower spatial resolution data, to thereby reduce artifacts in the image".

None of Toth, Oomori, Cuppen, Fujise, Gordon, and Hoffman, considered alone or in combination, describe or suggest a plurality of staggered half-detector segments separated from one another by empty space and configured to provide attenuation data having a relatively higher spatial resolution near a centerline extending in the z-axis direction of the detector array and a relatively lower spatial resolution distal to the centerline. Rather, Oomori describes that unit

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detecting elements arranged on a substrate in a zigzag form, wherein reference numeral 7 illustrates a Z axis, Toth describe detector modules, Cuppen describes columns of different widths, Fujise describes a source and a detector coupled to a rotating gantry and reconstructing of images, Gordon describes a spatially encoded detector arrangement wherein the detector elements provided in each of the columns have lengths that vary in the Z axis direction, and Hoffman describe blades being radially spaced from and extending substantially parallel to an adjacent one of the blades, and wherein the wires extend substantially perpendicular to the blades. For the reasons set forth above, Claim 12 is submitted to be patentable over Toth in view of Oomori, Cuppen, Fujise, Gordon, and Hoffman.

Claim 19 depends from independent Claim 12. When the recitations of Claim 19 are considered in combination with the recitations of Claim 12, Applicant submits that dependent Claim 19 likewise is patentable over Toth in view of Oomori, Cuppen, Fujise, Gordon, and Hoffman.

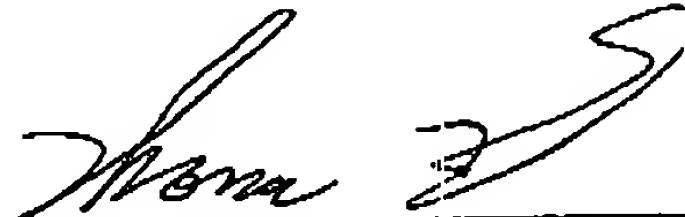
For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claim 19 be withdrawn.

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In view of the foregoing remarks, this application is believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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